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Analysis of the main factor signs and formation of the investment effectiveness model for small-scale generation objects

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Abstract

© SGEM2018. Within the outlines of work, based on foreign and Russian experience, the urgency of introducing small-scale generations into the real sector of the economy, including mini-thermoelectric plant (mini-TEPs) is stipulated. The main indicators that characterize the efficiency of power plants are provided. The basic techno-economic parameters of power plants, such as specific capital investments for the construction, the cost of electricity and heat, specific estimated operating costs and others, are analysed. Separated by their significant factor attribute number assesses the appropriateness of investments by the resulting indicator-the "efficiency of investments". Considering that the significant factorial attribute is consist of a linear regression equation monitoring the mini-TEP of the Custom Union states. Proposing and justifying the author's methodology of forming a multifactorial model for the efficiency of investments in the construction of a mini-TEP with gas engine fuel. The main barriers in the form of the practical impossibility of selling excess energy generated and the capacity of Russian mini-TEPs in centralized distribution networks have been identified. Formulating the main conclusion concerning the effectiveness of investments in modern small-scale generation facilities.

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Keywords

Cost, Efficiency, Electrical energy, Small generation, Thermal energy

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